PROCEEDINGS

OF

THE ROYAL SOCIETY.

1832–1833. No. 11.

November 15, 1832.

JOHN WILLIAM LUBBOCK, Esq. M.A., V.P. and Treasurer, in the Chair.

A paper was read, entitled "On some Properties of Numbers in Geometrical Progression." By Charles Blacklewar, Esq. B.A. Communicated by J. G. Children, Esq. Sec. R.S.

This paper contains the demonstrations of the three following theorems; namely,

1°. If the terms of a geometrical series be raised to 2^n, then any odd number of them is divisible by the corresponding terms of the original series.

2°. If each term of a geometrical series be raised to any odd power, the sum of the terms so raised is divisible by the original series, if the number of terms taken be any power of 2.

3°. If the number of terms of a geometrical series be any power of 2, the sum of the terms raised to the power m is divisible by the sum of the same terms raised to the power n, provided m divided by n be a whole number.

November 22, 1832.

JOHN BOSTOCK, M.D. Vice-President, in the Chair.

A paper was read, entitled "Account of an Improvement in the Machine for producing Engravings of Medals, Busts, &c. directly from the Objects themselves, in which the Distortions hitherto attending such Representations are entirely obviated." By Mr. Bate. Communicated by J. G. Children, Esq. Sec. R.S.

Some printed representations of medals having been received from America, about fifteen months ago, evidently effected by some process of ruling, Mr. Bate, jun. constructed an instrument for accomplishing the same object; but the results, both of the American method and of the one invented by Mr. Bate, were attended with a degree of distortion. This the author has ingeniously obviated, by giving an inclination of 45 degrees to the plane in which the tracing-line is moved over the surface of the object of which a representation is to be given.